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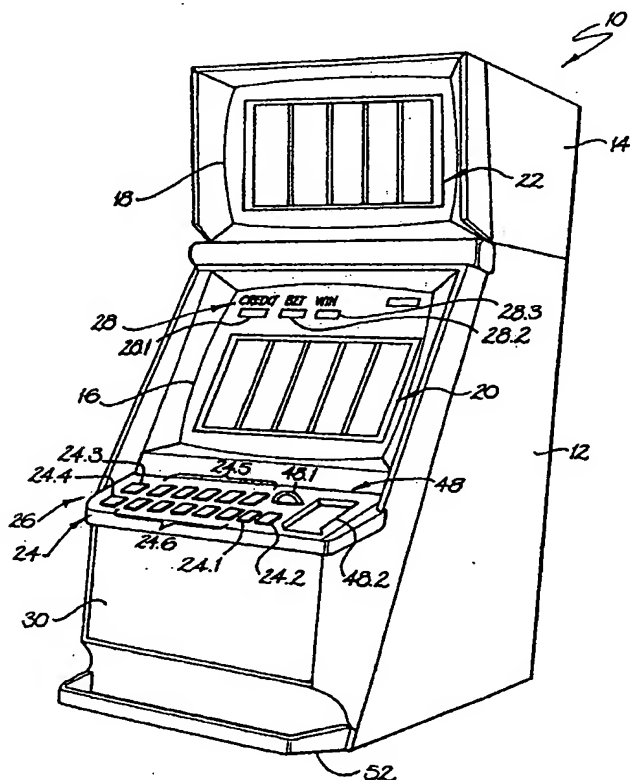
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- (72) Inventor; and
(75) Inventor/Applicant (for US only): STEVENS, Christopher [AU/AU]; 71 Longueville Road, Lane Cove, NSW 2066 (AU).
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- (74) Agent: F. B. RICE & CO.; 605 Darling Street, Balmain, NSW 2041 (AU).
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- (71) Applicant (for all designated States except US): ARISTOCRAT TECHNOLOGIES AUSTRALIA PTY. LTD. [AU/AU]; 71 Longueville Road, Lane Cove, NSW 2066 (AU).
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(54) Title: A GAMING MACHINE



(57) Abstract: A gaming machine includes a gaming console. A first video display unit on which a video simulation of a first game is displayed is housed in the console. A second video display unit on which a video simulation of a second game is displayed is also housed in the console; the second video display unit being vertically disposed with respect to the first video display unit. A player input means and a control means are arranged in the console for controlling images displayed on the first video display unit and the second video display unit. The games and the images thereof appearing on the first and second video display units are independent of each other.

A gaming machine

Field of Invention

The present invention relates to a gaming machine. More particularly, the invention relates to a gaming machine of the type generally referred to as a slot machine, a fruit machine or a poker machine.

Description of the Prior Art

Players who regularly play gaming machines quickly tire of particular games. It is therefore necessary for manufacturers of gaming machines to introduce innovative new game features or to provide new games.

In recent years, the gaming machine market has experienced considerable growth. Intense competition exists between manufacturers of gaming machines to supply various existing and new venues. Clearly, the revenue raised by an operator of a particular venue depends on the amount of money wagered. This is directly proportional to the popularity of a particular machine. Hence, when selecting a supplier of gaming machines, the operator of a venue pays close attention to the popularity of the various games with their patrons and monitors the levels of interest which games attract and continue to attract.

The two most popular types of gaming machines are either for electronically operated card games, such as poker and variations of poker, or machines of traditional, and somewhat confusingly named, poker machine style (also commonly known as fruit machines or slot machines) in which the display means comprises a set of rotatable reels, each carrying a plurality of symbols, or a video simulation of rotating reels.

Summary of the Invention

According to the invention, there is provided a gaming machine which includes

- a gaming console;

- a first video display unit on which a video simulation of a first game can be displayed housed in the console;

- a second video display unit on which a video simulation of a second game can be displayed also housed in the console, the second video display unit being vertically disposed with respect to the first video display unit ;
- and

- a player input means and a control means arranged in the console for controlling images displayed on the first video display unit and the second

video display unit, game outcomes of the games played on the first and second video display units being determined independently of each other.

Those skilled in the art will readily appreciate that, generally, a video display unit of a gaming machine is substantially rectangular in shape. By "vertically disposed" is meant that an upper, longer edge of the lower video display unit is closest to a lower, longer edge of the upper video display unit. Accordingly, in a slant-top machine, the first video display unit would be located closer to a player or patron than a second video display unit.

The player input means may include a selecting means for enabling a player to select between playing one game and both games. The selecting means may be a switch. The switch may be a mechanical switch or a touch sensor of a touch screen.

Further, the player input means may include sensors able to be manipulated by the player to select options in respect of each game. Each sensor may be a mechanical sensor in the form of a mechanical switch. The switches may then be arrayed in a keypad arrangement on a midtrim of the gaming console. Instead, the sensors may be touch sensors of a touch screen of one of the video display units, preferably, the first video display unit.

The games played on the machines may be different types of games. For example, the first game may be a spinning reel-type game with a video simulation of spinning reels with the second game being a poker-type game with a video simulation of cards of a deck of cards. Then, each sensor of a first group of sensors may perform at least two different functions, one in respect of the first game and one in respect of the second game. For example, each sensor of the group may bet a predetermined number of credits per line for the first game or a predetermined number of credits per draws for the second game. These sensors may, in addition, perform a third function related only to the second game. This third function may be a "hold" function for holding selected cards of the game.

Similarly, each sensor of a second group of sensors may perform two functions. Thus, each sensor may, in respect of the first game, govern the number of paylines to be played and, in respect of the second game, the number of draws to be made.

It will be appreciated that, instead of two different games, the games could be of the same type with different criteria applied thereto. For example, both games may be spinning reel games. However, the number of

credits able to be bet per line in respect of the two games may differ. Similarly, the number of paylines applicable to the two games may differ. Then, the first group of sensors may govern the number of credits per line in respect of each of the games and the second group of sensors may govern the number of paylines to be played in respect of the two games.

The video display units may be of a conventional size used in gaming machines. Hence, the gaming machine may be an upright machine and the second video display unit may be mounted in a top box of the gaming machine. Paytables, displaying various winning combinations for which prizes are paid on the games of the machine, may be carried on a belly panel of the console.

The control means may include two controllers, one for each video display unit. Preferably, one of the controllers is a master controller with the other one being a slave controller. Signals from the selecting means and the sensors may be fed to the master controller which, in turn, may control operation of the second controller and, accordingly, a game played on the second video display unit.

Preferably, the game to be played on the second video display unit, i.e. the video unit mounted in the top box is a game that is popular with patrons for attracting patrons to the gaming machines. This may be particularly advantageous where a new game is to be introduced on the first video display unit.

In addition, the games to be played on the second video display units of a plurality of gaming machines may be linked. Then, to attract patrons, an animation could migrate between top boxes of linked machines as if looking for a gaming machine to which to award a feature.

When both games have been selected by the player via the player input means, the control means may cause both games to be initiated at the same time, the control means inhibiting the commencement of further games on either the first video display unit or both video display units until said both games have been completed.

Brief Description of the Drawings

The invention is now described by way of example with reference to the accompanying drawings in which:-

Figure 1 shows a perspective view of a gaming machine in accordance with a first embodiment of the invention;

Figure 2 shows a schematic, block diagram of a control circuit of the gaming machine of Figure 1;

Figure 3 shows a perspective view of a gaming machine, in accordance with a second embodiment of the invention; and

Figure 4 shows, in greater detail, a keypad of the gaming machine of Figure 3.

Detailed Description of the Preferred Embodiment

Referring initially to Figure 1 of the drawings, reference numeral 10 generally designates a gaming machine in accordance with a first embodiment of the invention. The gaming machine is an upright unit having a console 12 including a top box 14.

A first video display unit 16 is mounted in the console 12 and a second video display unit 18 is mounted in the top box 14.

The video display unit 16 has a video screen on which images of a first game 20 are displayed. The video display unit 18 has a screen on which images of a second game 22 are displayed. In this embodiment of the invention, both games 20, 22 displayed on the units 16 and 18 are of the type simulating rotating reels. Instead, as shown in Figure 3 of the drawings the game 20 is of the type simulating rotating reels, the other game 22 being of the type simulating cards of a deck of cards.

Importantly, the games 20, 22 displayed on the units 16 and 18 are independent of each other. In other words, the result of the game 22 displayed on the unit 18 does not influence the result of the game 20 displayed on the unit 16 and vice versa.

The playing of the games 20, 22 is controlled by a keypad or bank of buttons 24 housed in a midtrim 26 of the gaming machine 10. Button 24.1 is used for selecting the game to be played on the upper video display unit 18. The buttons 24 will be described in greater detail below.

If a patron wishes to play both games 20, 22 of the machine 10, the appropriate number of bets needs to be made. The playing of both games 20, 22 will be optional and at the discretion of the patron.

Thus, the gaming machine 10 includes separate controllers, as discussed below, for each video display unit 16 and 18 which are responsive to appropriate manipulation of the buttons 24.

The gaming machine 10 has a set of meters 28 common to both video display units 16 and 18. Hence, a first meter 28.1 indicates the credits

available to the patron as a result of previous wins and/or as a result of having been inserted into the machine 10 by the patron. The meter 28.2 shows the bets made by the patron for a particular game or games and the meter 28.3 shows the amount won by the patron as a result of a winning combination of symbols appearing on one or both of the units 16, 18. The meters 28 are incorporated in the screen of the video display unit 16.

Paytables (not shown), displaying various winning combinations for which prizes are paid on the machine 10 for each game 20, 22 are carried on a belly panel 30 of the machine 10.

If the patron is playing games on both units 16 and 18 and both games 20, 22 result in a winning combination of symbols, the wins displayed on the meter 28.3 increments sequentially and game play resumes once the wins of both games 20, 22 have been displayed and credited on the credit meter 28.1.

It is intended that, in use, should a patron wish to play only one of the games, that game will be the game 20 of the unit 16 with the patron having the option of playing the game 22 of the unit 18 only if the patron has selected to play the game 20. In other words, in order to play the game 22, the game 20 has to be played. The player selects game 22 by means of button 24.1.

Referring now to Figure 2 of the drawings, a control means or control circuit 40 of the gaming machine is illustrated. The control circuit 40 includes a pair of controllers 42 and 44. Programs which implement the games 20, 22 are run on the controllers 42, 44, respectively. The controller 42 is a master controller and receives inputs from sensors 46. If sensors 46 are either associated with the buttons 24 or, instead or additionally, from touch sensors associated with the screen 16. The controller 44 is a slave controller, receiving commands from the master controller 42.

The controller 42 also receives input pulses from a credit input mechanism 48. The credit input mechanism 48, which is housed on the midtrim 26 of the console 12, includes a coin input chute 48.1 (Figure 1) and a bill collector 48.2. The mechanism 48 may, instead of the coin input chute 48.1 or the bill collector 48.2, or in addition thereto, be a credit card reader (not shown) or any other type of validation device.

The controller 42 also drives a payout mechanism 50 which, for example, may be a coin hopper for feeding coins to a coin tray 52 of the

machine 10 to pay a prize once a predetermined winning combination occurs in respect of either the game 20 or both games 20, 22.

As described in Figure 3 of the drawings, the game 22 played on the screen 18, in the top box 14, is a poker-type game as opposed to a spinning reel game shown in Figure 1 of the drawings.

Referring now to Figure 4 of the drawings, the keypad 24 for the gaming machine of Figure 3 is described in greater detail.

The keypad 24 includes a first button 24.1 which is a toggle button. By means of this button, the patron can decide whether or not to play the second game 22 in the top box 14. Hence, if the button is pressed a first time, both games 20 and 22 are played and, if the button is pressed a second time, only the game 20 is to be played.

The button 24.2 is provided to allow the patron to commence a further game using the same criteria as a preceding game and/or bet.

When a game commences on both displays at once, then no further games can be initiated on either display until both of those games have been completed.

A button 24.3 is provided to allow the patron who has finished playing to collect winnings and to cause the machine to pay out any credits standing to that patron. A button 24.4 is provided to reserve the machine 10 for the patron.

The keypad 24 includes a first group of buttons 24.5a to 24.5e. Each button 24.5 of this group performs three functions. First of all, each button 24.5 of the group governs the number of bets per line for the game 20 on the screen 16. Secondly, each button 24.5 controls the number of bets per draw for the game 22 on the screen 18. Also, in respect of the game 22, each button 24.5 functions as a hold button for holding one of the cards in the game 22.

The keypad 24 includes a second group of buttons 24.6a to 24.6e. Each button 24.6 in this group performs two functions. In respect of the game 20 on the screen 16, each button 24.6 controls a number of paylines which are activated. In respect of the game 22, each button 24.6 controls the number of draws to be made.

In respect of the embodiment illustrated in Figure 1 of the drawings, each button of the group 24.5 may control a different number of credits per line which are bet in respect of each game, if applicable. The buttons 24.6

may cause a different number of paylines to be activated in respect of each game 20, 22. For example, the first game 20 may be a forty five credit maximum game and may have bets of one, two, three, four and five credits per line and the option to select from one, three, five, seven or nine active paylines. The game 22 may be a two hundred credit maximum spinning reel game having buttons 24.5 controlling bets of one, two, three, five or ten credits per line and buttons 24.6 controlling the selection of one, five, ten, fifteen or twenty active paylines.

Hence, it will be appreciated that if maximum credits are played on the first game and the second game, the cost for the game will be 245 credits which corresponds to 5 credits per line X 9 active paylines on game 20 plus 10 credits per line X 20 active paylines on game 22.

Similarly, for the game of Figure 3, if a maximum bet game is played on both games 20 and 22, the total credit deducted would be seventy credits being made up of, for the first game 20, five credits per line on nine lines and, for the second game 22, five credits per draw for five draws.

It is also intended that the game 22 will be a popular game to attract players to the machine 10. This will benefit the venue since, in order to enable the patron to play the popular game, the patron will need to play both games of the machine 10. In addition, the provision of the popular game in an elevated position, ie in the top box 14, will have the effect of attracting players to a bank of the gaming machines 10. This has the added advantage that a familiar game in the top box 14 of the machine 10 will attract the player and new games 20 can be introduced on the video display unit 16 in the console 12 of the machine 10 to introduce the players or patrons to the new games and overcome resistance to new games.

Further, to encourage play, top "reels" on the unit 18 can be spun continuously to show "missed wins". In addition, if the machines 10 are linked, an animation or other device could move between top boxes 14 of the linked machines as if looking for a feature to serve as a further inducement to players to play the machines 10.

It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive.

CLAIMS:

1. A gaming machine which includes
 - a gaming console;
 - a first video display unit on which a video simulation of a first game is displayed housed in the console;
 - 5 a second video display unit on which a video simulation of a second game is displayed also housed in the console, the second video display unit, in use, being vertically disposed with respect to the first video display unit; and
 - 10 a player input means and a control means arranged in the console for controlling images displayed on the first video display unit and the second video display unit, game outcomes of the games played on the first video display unit and the second video display unit being determined independently of each other.
 - 15
2. The gaming machine of claim 1 in which the player input means includes a selecting means for enabling a player to select between playing one game and both games.
3. The gaming machine of claim 1 or claim 2 in which the player input means includes sensors able to be manipulated by the player to select options in respect of each game.
4. The gaming machine of claim 3 in which each sensor performs a different function in respect of each of the two games.
5. The gaming machine of any one of the preceding claims where the games played on the two video display units are different types of games.
6. The gaming machine of any one of the preceding claims in which the second video display unit is mounted in a top box of the console.
7. The gaming machine of any one of the preceding claims in which the game played on at least one of the video display units is linked to games of other machines.
8. The gaming machine of any one of the preceding claims in which the control means includes two controllers, one for each video display unit.
9. The gaming machine of any one of the preceding claims in which, when both games have been selected by the player via the player input means, the control means causes both games to be initiated at the same time,
- 35

the control means inhibiting the commencement of further games on either the first video display unit or both video display units until said both games have been completed.

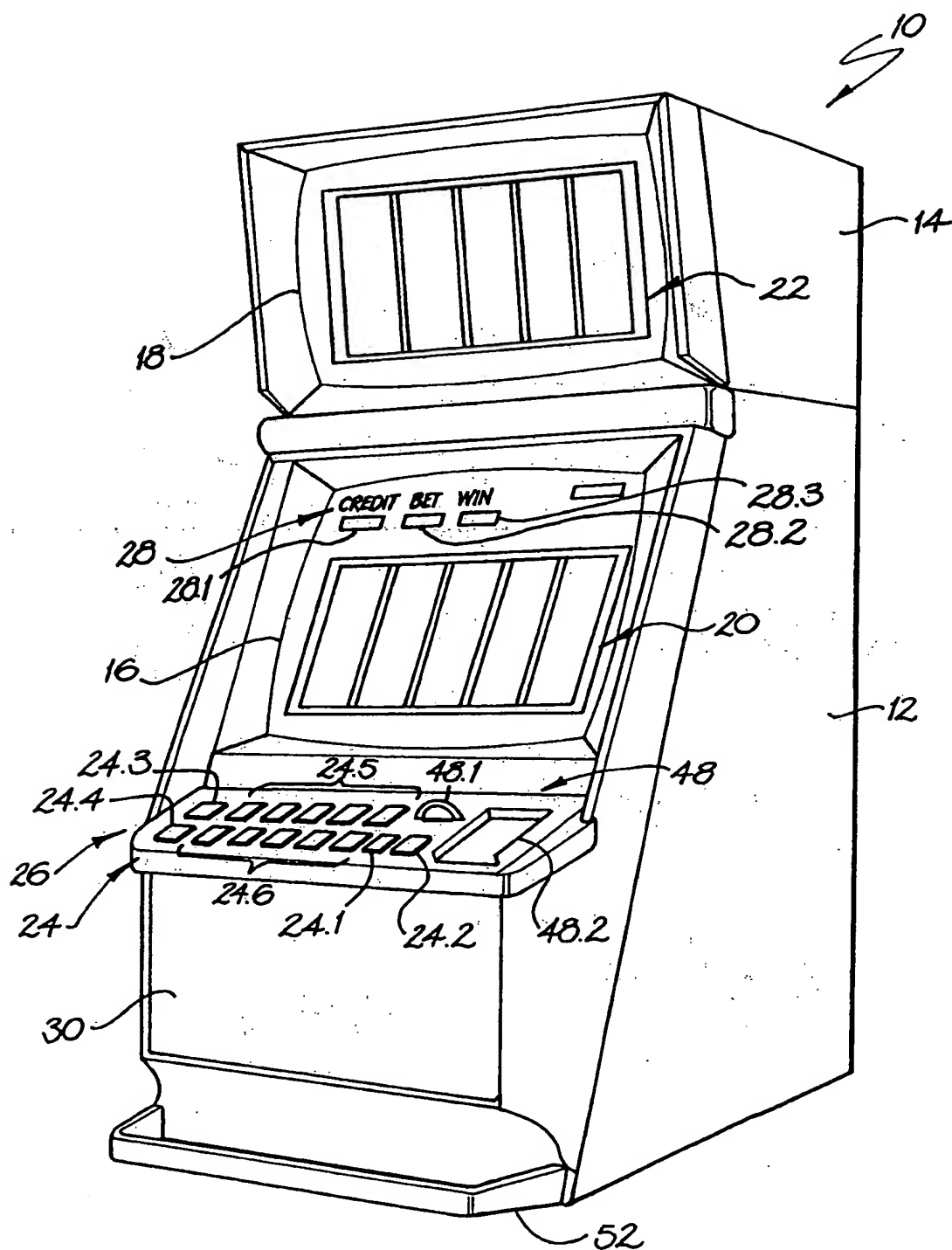


FIG. 1

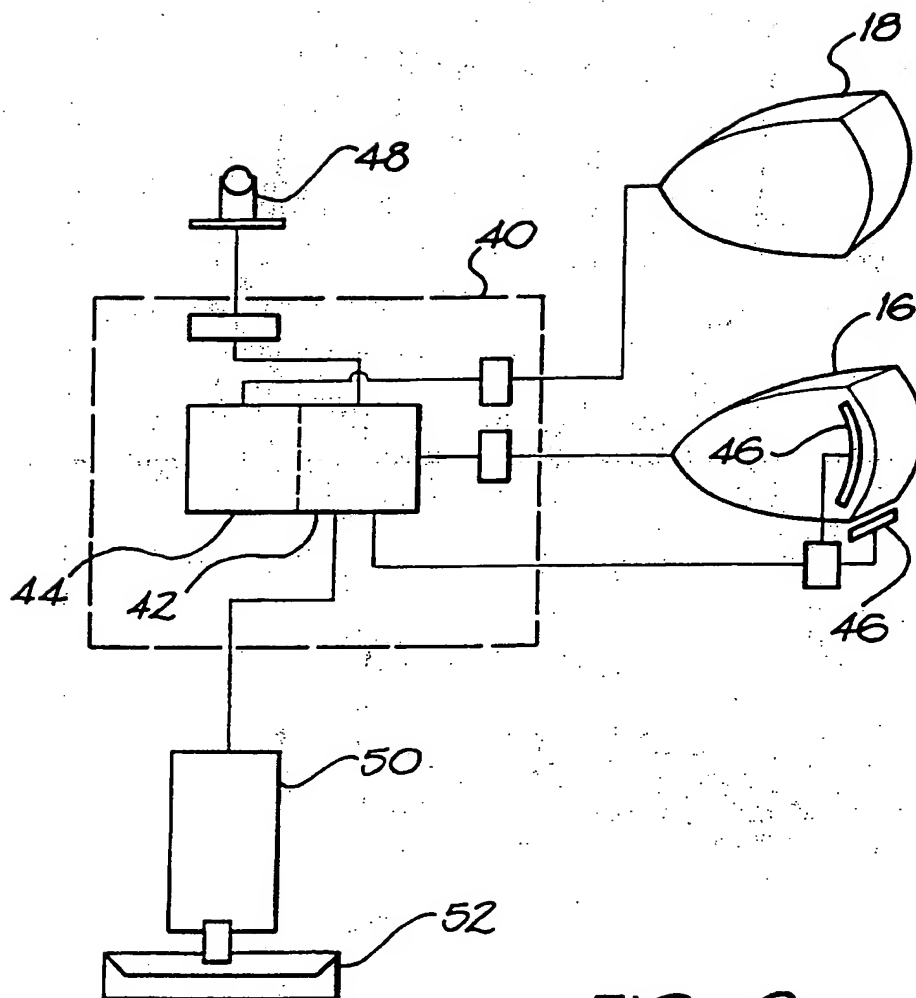


FIG. 2

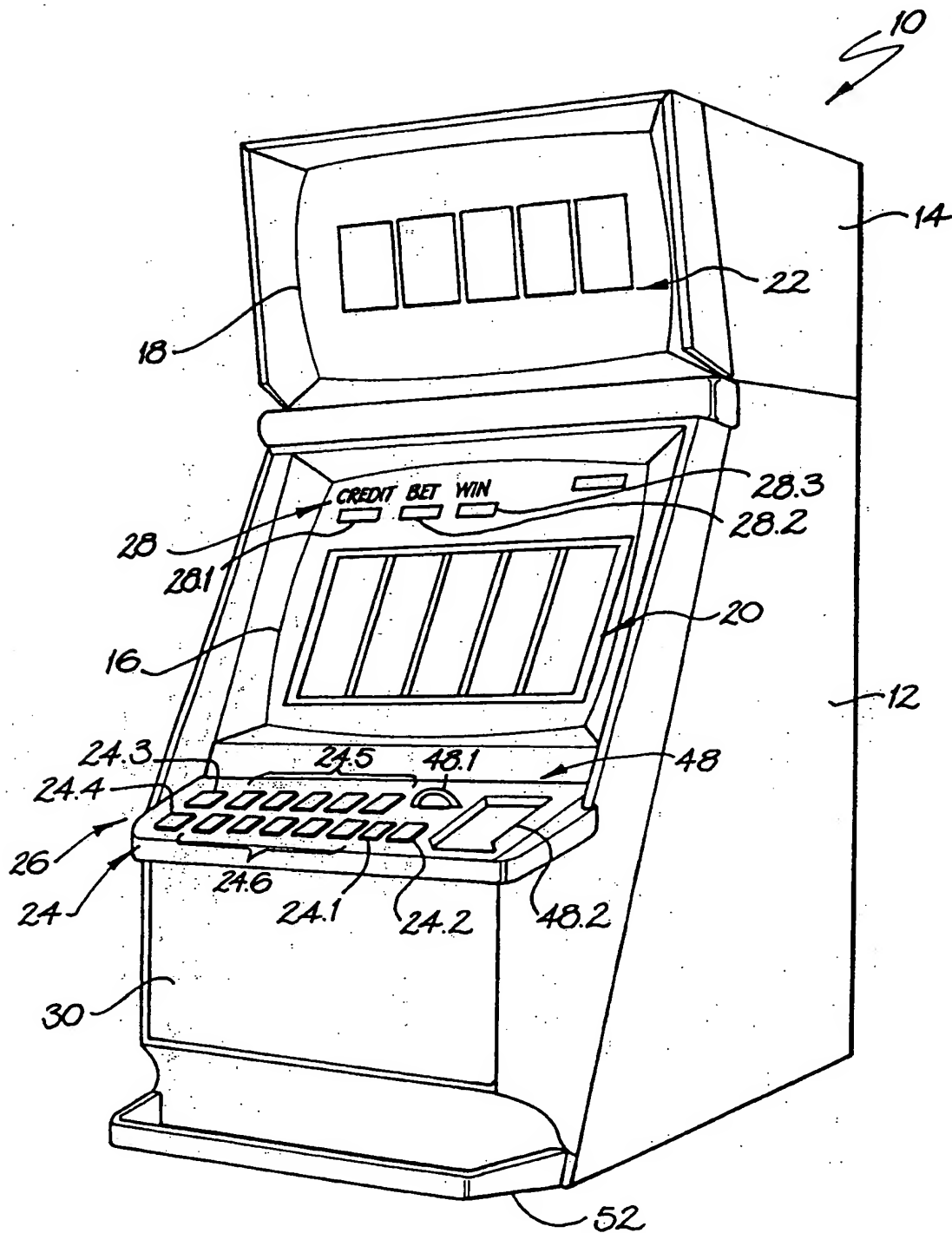


FIG. 3

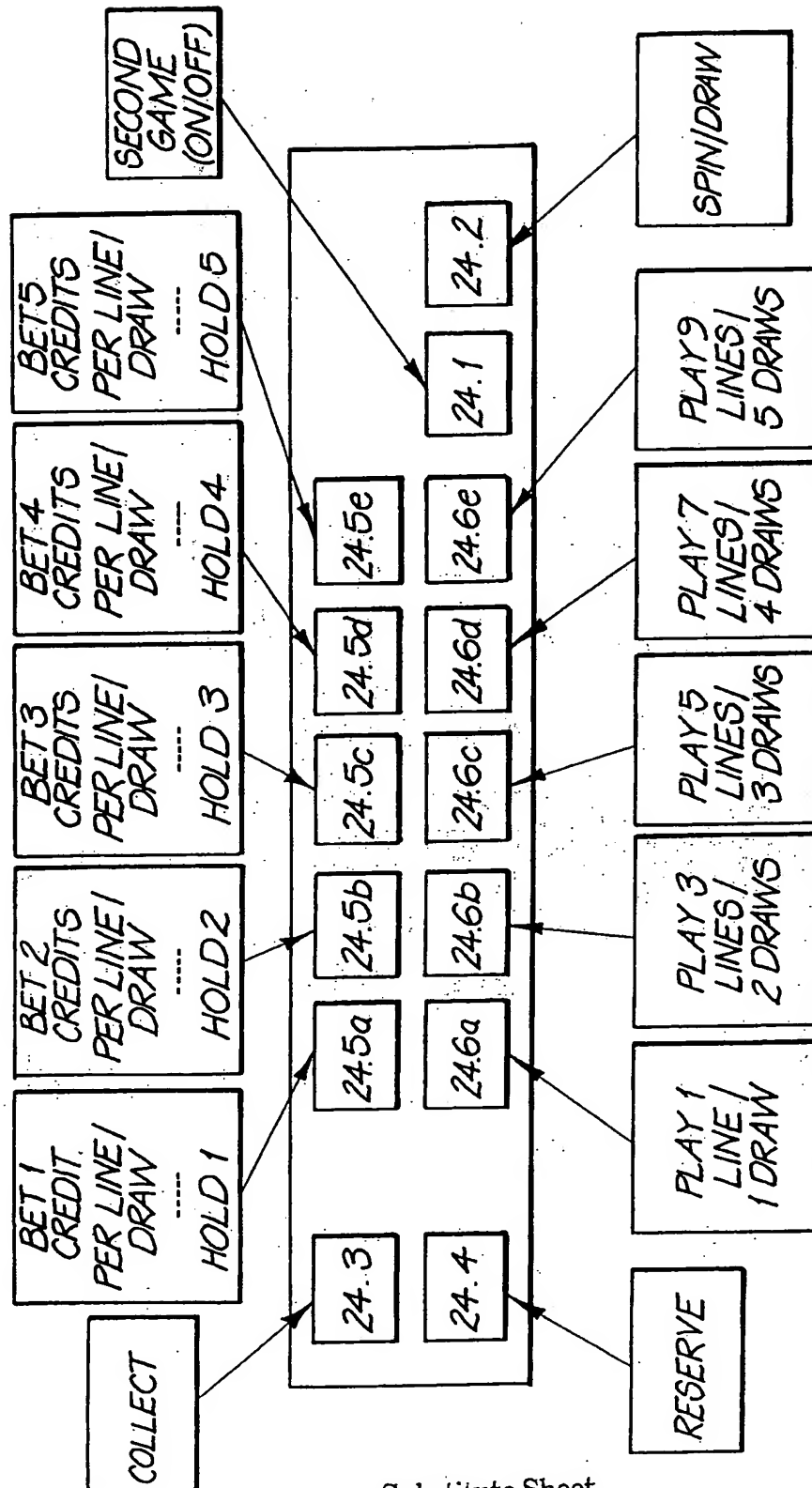


FIG. 4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU00/00946

| A. CLASSIFICATION OF SUBJECT MATTER | | |
|---|--|---|
| Int. Cl. ⁷ : A63F 5/04; G07F 17/34 | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED | | |
| Minimum documentation searched (classification system followed by classification symbols) IPC: A63F 5/ , 9/22, 13/10; G07F 17/32, 17/34; G06F161/00 | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WPAT | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | GB 2333880A (Barcrest Limited) 04 August 1999 | 1-9 |
| X | GB 2292245A (NSM Aktiengesellschaft) 14 February 1996 | 1-9 |
| X | GB 2239547A (Famous Games Limited) 03 July 1991 | 1-9 |
| X | DE 4426703A1 (Bally Wulff Automaten GmbH) 25 January 1996 | 1-9 |
| Y | AU 78853/98A (International Game Technology) 18 February 1999 | 1-9 |
| Y | DE 19537525A1 (Bally Wulff Automaten GmbH) 03 April 1997 | 1-9 |
| Y | DE 3801643A1 (NSM-Apparatebau GbmH & Co KG) 27 July 1989 | 1-9 |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex | | |
| <p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p> | | |
| Date of the actual completion of the international search 04 September 2000 | | Date of mailing of the international search report 11 SEP 2000 |
| Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929 | | Authorized officer M. EMAMI Telephone No : (02) 6283 2204 |

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU00/00946

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | | Patent Family Member | |
|--|----------|----------------------|----------------------|
| GB | 2292245 | DE4426583 | |
| AU | 78853/98 | EP919965 | JP11114137 ZA9807115 |
| | | | END OF ANNEX |